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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,287	07/19/2001	Arun Kwangil Iyengar	YOR920010243US1	2180

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EXAMINER

ALAM, SHAHID AL

ART UNIT PAPER NUMBER

2162

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/909,287

Applicant(s)

IYENGAR, ARUN KWANGIL

Examiner

Shahid Al Alam

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-6, 10-16, 21, 23 and 24 is/are rejected.
7) ☒ Claim(s) 7-9, 17-19, 22 and 25 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6 July 2004 have been fully considered but they are not persuasive for the following reasons.

Applicant argues that Ledain does not teach log that records accesses to data objects; Ledain fails to disclose the determination of at least one cluster comprised of data objects accessed substantially similar times from the maintained log; and Ledain does not teach or suggest storing data objects in close proximity to one another.

Examiner respectfully disagrees all of the allegations as argued. Examiner, in his previous office action, gave detail explanation of claimed limitation and pointed out exact locations in the cited prior art.

Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification.

Interpretation of Claims-Broadest Reasonable Interpretation

During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

Ledain's teachings of data that is to be written (store) to or read (access) from a selected file system nominally **maintained on the main file system disks is routed**

through the log device pseudo-device driver and may be made subject to the control operations established by the execution of the log device pseudo-device driver.

Specifically, the log device pseudo-device driver selectively provides for the routing of file system data directed to the main file system disks to be at least temporarily stored and potentially read back from the log device disks; the independent operation and management of the log device allows the operation and management of the main file system to be **optimized independently of the log device** to best serve **optimization typically for read accesses**, such as by **file and directory clustering** and various forms of data striping to improve the integrity and logical survivability of the mass storage device; and the log map routine manage a number of translation maps ultimately utilized to establish logical correlations between data blocks, as stored in log blocks within data segments, all as stored on the log device, and the data block storage locations within the file system layout structure established for the logged file system on the main file system disks. These log maps permit data blocks to be referenced by the log device pseudo-device driver based on logical references specific to the organization of the file system established on the main file system disks. By maintaining the appearance of a single location representation for all user data that is passed through the log device pseudo-device driver, independent and even multiple file system organizations on the main file system disks can be supported through **the log device transparently with respect to the kernel mode operating system core itself** clearly teaches argued limitation.

In response to applicant's argument that the term "log" is nonanalogous art as taught by Ledain, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, teachings of data that is to be written (store) to or read (access) from a selected file system nominally **maintained on the main file system disks is routed through the log device pseudo-device driver.**

Applicant's arguments, with respect to dependent claims and 35 USC 103 rejection, fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

In view of the above, the examiner contends that all limitations as recited in the claims have been addressed in this Action.

For the above reasons, Examiner believed that rejection of the last Office action was proper.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 6, 10, 11 – 16, 20, 21 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Number 6,021,408 issued to Joel E. Ledain et al. (hereinafter “Ledain”).

With respect to claim 1, Ledain teaches a method of managing data objects in a computer system, the method comprising the steps of:

maintaining a log of at least a portion of accesses to the data objects (column 9, lines 20 – 29);

determining from the maintained log at least one cluster comprised of data objects accessed at substantially similar times (column 5, line 65 – column 6, line 5);
and

storing the data objects comprising the at least one cluster in close proximity to one another in a memory (column 16, line 65 – column 17, line 7).

As to claim 2, an access comprises a request to one of read and write a data object (column 9, lines 20 – 29).

As to claim 3, the data objects comprise Web data and the log comprises at least one Web log (see abstract).

As to claim 10, the memory comprises a disk storage device (column 2, lines 36 – 39).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ledain and in view of Todd Guay et al. (hereinafter "Guay").

With respect to claim 4, 5 and 6, Ledain teaches the log maintenance, storage of files and file write access time. Ledain does not explicitly teach determining a number of time periods, computing a quotient and adding the object to the cluster as claimed.

Guay teaches claimed determining a number of time periods, a cluster is accessed; an object is accessed along with the cluster; and determine whether to add the object to the cluster and computing a quotient (column 11, lines 16 – 50; Guay).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine Guay with Ledain for efficiently performing administrative functions in information systems during scheduled down times is highly desirable (column 2, lines 10 – 14; Guay).

Claims 11 – 16 and 20 are essentially the same as claims 1 – 6 and 10 except that it sets forth the claimed invention as an apparatus rather than a method and rejected for the same reasons as applied hereinabove.

Claims 21 and 23 are essentially the same as claims 1 – 6 and 10 except that it sets forth the claimed invention as a system rather than a method and rejected for the same reasons as applied hereinabove.

Claim 24 is essentially the same as claims 1 – 6 and 10 except that it sets forth the claimed invention as an article of manufacture rather than a method and rejected for the same reasons as applied hereinabove.

Allowable Subject Matter

4. Claims 7 – 9, 17 – 19, 22 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahid Al Alam whose telephone number is (571) 272-4030. The examiner can normally be reached on Monday-Thursday 8:00 A.M.- 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Shahid Al Alam
Primary Examiner
Art Unit 2162

5 February 2005